AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE J	PAGE OF PAGES 1 | 11

2. AMENDMENT/MODIFICATION NO.	3.EFFECTIVE DATE	4. REQUISITION/PURCHASE REG. NO.	5. PROJ NO. *(if applicable)*
0002	**7 JUN 2002**	**N/A**	

6. ISSUED BY CODE	N00164	7. ADMINISTERED BY *(if other than Item 6)code*	S3319A

CONTRACTING OFFICER
NAVSURFWARCENDIV 300 HWY 361
CRANE IN 47522-5001
BUYER/SYMBOL: Ms. Kelly Sargent / 1165ZD
PHONE: 812-854-3862 fax 812-854-5066
e-mail sargent_k@crane.navy.mil

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, State and ZIP Code)*		9A. AMENDMENT OF SOLICITATION NO.
	X	**N00164-02-R-8512**
		9B. DATED *(SEE ITEM 11)* **24MAY2002**
Telephone: **Fax:**		10A. MODIFICATION OF CONTRACT/ ORDER NO.
		10B. DATED *(SEE ITEM 13)*
CAGE CODE: FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X The above numbered solicitation is amended as set forth in Item 14. **The hour and date specified for receipt of Offers [X] is extended to 25 June 2002 2:00 p.m. est.** [ ] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER . If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS AND CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT CHANGE NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation data, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ( ) is not, (X) is required to sign this document and return 1 copy(ies) to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organization by UCF section headings, including solicitation/contract subject matter where feasible.)* **This amendment is issued to make SOW, Performance Specification (PS) and solicitation clarifications, and to provide a revised SOW and PS, attachments hereto. See pages 2 through 10.**

Except as provided herein, all terms and conditions referenced in Item 9A and 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY	16C. DATE SIGNED
(Signature of person authorized to sign)		*(Signature of Contracting Officer)*	

1. The following clarifications are provided to questions received in response to the Market Survey / Request for Information:

Question 1: The SOW did not stipulate responsibility for the cost associated with shipping and handling of non-warranty returns. How is S/H to be handled after award?

Answer: NSWC Crane is responsible for paying shipping costs for non-warranty repairs for shipment to the Original Equipment Manufacturer (OEM). The OEM is responsible for paying the return shipping costs after the Sight is repaired to NSWC Crane. NSWC Crane is not responsible for any taxes accessed on repairs. Shipping costs will be F. o. B. Origin and prepaid by the contractor. Following contract award, the Contractor shall propose actual shipping charges along with cost proposal for delivery order placement for Failure Analysis and repair on non-warranty repairs. Contractor will be reimbursed for shipping charges when invoice is paid. The Solicitation will be modified to reflect the following for CLIN 0004:

52.247-32	F. o. b. Origin, Freight Prepaid	Jun 1988

All other contract CLINS shall reflect F.o.B. Destination pricing. Warranty repairs shall be F.o.B. destination.

Question 2: SOW para 3.6. We intend to advise the Government of configuration changes, but not require their approval. This area needs to be carefully evaluated in the proposal phase.

Answer : The Government's intention is to type-classify this device. A top-assembly drawing will be required for this Sight. Therefore, any changes that affect form, fit, or function shall have configuration control for this Contract. Reference SOW paragraph 3.6 revision which requires Government approval.

Question 3: Does the Government intend to return the product samples after Testing?

Answer: It is the Government's intent not to return Product Samples provided for use in the evaluation to the Offeror. The product samples for CLINs 0001, 0002 and 0003 shall be furnished at no cost to the Government and shall not be returned. The same product sample may be supplied per configuration proposed to meet CLINs 0001 and 0002 requirements. A dayscope must be supplied if the contractor intends to propose on CLIN 0002.

Question 4: Should separate quotes be generated for both configurations (CLINs 0001 and 0002) or will one quote, which allows the government to choose, be acceptable?

Answer: Separate technical proposals shall be submitted for each CLIN proposed. Cost proposals may be consolidated in one volume.

Question 5: For a COTS item there appears to be a very large number of CDRLs. Can CDRLs be reduced or eliminated?

Answer: First, these items are not COTS items. Secondly, the Government does not intend to reduce the number of CDRLs. It is agreed that the status of these items can be discussed at Program Reviews but the Government requires a CDRL for all data to be delivered under the Contract.

Question 6: Performance Specification (PS) paragraph 3.5.1. We suggest a 3.1 cy/mr specification for the night sight as well as the system.

Answer: There is no change required in the resolution specification. The Government's requirement is stated in the PS para. 3.5.1.

Question 7: PS para 3.5.4. The threshold definition requires that the night sight not downgrade the shooters current level of accuracy. Any clip-on sight, whether it is adjustable or not, will reduce the shooters accuracy. This is due to inherent (small) boresight deviations and because intensified imagery provides less resolution and more noise than non-intensified imagery. Furthermore, the accuracy requirements uses the phrase "delivering precise fire within 1 MOA". Does this mean that the weapon errors are added to the boresight error or does it mean that the boresight deviation of the night sight itself must be less than 1 MOA? We suggest the use of the standard specification . . . . Boresight deviation with respect to the day scope of less than 1 MOA and repeatability to within 0.5 MOA on subsequent installation on the same rail. (all specified at 23 degrees Centigrade, 1 atmosphere).

Answer: It is the intention that any device that is added to the weapon does not degrade the user's capability to use their weapon (objective). The definition of current level of accuracy is that firing accuracy will not be less than the standard issue AN/PVS-10 night sight's accuracy to hit the target at night. The overall accuracy must be less than 1 MOA. **PS para 3.5.4 has been revised to include the definition of current level of accuracy.**

Question 8: Is the third configuration (CLIN 0003) intensified during daytime use?

Answer: CLIN 0003 is intensified during daytime use preferably when used with IR lens or daylight cover.

Question 9: PS para 3.4.4. What is the DoD common lithium battery?

Answer: 1.5 volt AA lithium battery. Paragraph 3.4.4 has been revised to include this information.

Question 10: PS para 3.4.6. Although not currently equipped our unit has provisions for a light leakage blocking coupler. The exact form of the coupler depends on the weapon and the sight used. Can the Government specify the exact weapon(s) and Dayscope(s) to be used with the night scope.

Answer: Any proposal which does not meet this specification requirement should indicate how the offeror is going to comply with the requirement to block light leakage at the interface between the dayscope objective lens and in line/clip-on sight configuration. Please reference PS para 3.4.3 and new PS para 3.4.3.1 for exact weapon interface requirements.

Question 11: PS para 3.4.11. Are user adjustments of the night scope required?

Answer: The Government does not intend to tell the Contractor how to design their device. Windage and elevation adjustments refer to dayscope only or standalone night sight reticules. Any proposal which does not meet this specification requirement should indicate how the offeror is going to comply with the requirement. No change to PS para 3.4.11.

Question 12: PS para 3.4.11. Side Mounted Focus objective: The requirement that the device be ambidextrous makes this much more difficult. The focus control on our night sight is positioned to allow it to be operated with either hand, but is recessed below the top of the unit so as not to increase the profile of the sniper.

Answer: The side mounted focus objective applies to the CLIN 0002 dayscope only, and to CLIN 0003. Any proposal which does not meet this specification requirement should indicate how the offeror is going to comply with the requirement.

Question 13: PS Para 3.5.3. Noise Requirement. As stated in the RFI, the audibility requirement is subject to the ambient conditions and the hearing acuity of the test subject. It is suggested that the non-detect ability requirement used for the OMNI 6 procurement and defined by MIL-STD-1474 be applied to these systems.

Answer: The Performance Specification paragraph 3.5.3 has been changed to make the noise requirement an objective.

Question 14: PS para. 3.5.1 and 3.5.13. Detection and Recognition Requirements: **What angular resolution is required to meet the Governments recognition criteria ?**

Answer: The Government's intention is not to change the specification for detection/recognition. It is not the Government's intention to direct the Contractor how to meet these requirements. Please see PS para 3.5.4, Accuracy, note on comparing to AN/PVS-10. To account for the possible lighting and range conditions (including target contrast) the AN/PVS-10 will be used as a comparison when testing the proposed sight.

Question 15: PS para 3.5.1 and 3.5.13. We suggest leaving Detection and Recognition requirements out of the specification altogether, since they are so heavily dependent upon assumptions concerning the target and the background. To insure the best performance from an intensified night sight, specify:

- **A. The system resolution,**
- **B. The maximum T-number of the lens,**
- **C. The transmission of the output optic, and**
- **D. The minimum diameter of the output optic.**

Answer: The Government's intention is not to change the specification for detection/recognition. It is not the Government's intention to direct the Contractor how to meet these requirements. Please see PS para 3.5.4, Accuracy, note on comparing to AN/PVS-10. To account for the possible lighting and range conditions (including target contrast) the AN/PVS-10 will be used as a comparison when testing the proposed sight.

Question 16: PS para 3.5.3. ***Security Test. The audibility portion of this test requires an ambient noise level as well as some sort of calibrated ear. Can this test be preformed to be quantitative, possibly as detailed in MIL-STD-1474?***

Answer: It is the Government's intention not to invoke MIL-STDS for audible performance. This requirement is now an objective. Reference PS para 3.5.3.

Question 17: ***PS para 3.5.6.*** **Repeatability Test.** ***Does this test require the sight to remain accurate to within 0.5 MOA, or is it requiring that it repeat the original boresight to within 0.5 MOA upon repeated installation regardless of its accuracy?***

Answer: The requirement identified in paragraph 3.5.6 of the performance specification states our repeatability requirement.

Question 18: Weaver Rail: ***Reference SOW para 3.1.1.2.2 AND 3.1.1.4.2 refer to the" weaver rail type" requirements. A Picatinny MIL-STD 1913 rail has been the standard in the past and we would like clarification on this subject.***

Answer: The SOW requirement, paragraph 3.1.1.2.2 and 3.1.1.4.2 for the Weaver Rail have been deleted.

Question 19: SOW Para 3.7.2 Warranty requires contractor to repair returned sights or replace with new equipment within 14 days of receipt. A) Would the Government purchase a float stock of sights or spare parts/assemblies to draw from during life of the contract? B) Would the Government add a sentence allowing for 30 days repair and then return to float stock? C) Will the Government authorize the contractor to deliver reconditioned sights (sights the Government has returned for warranty or non-warranty repair) as new sights under the contract?

Answer: Para 3.7.2 No. The Government will not purchase float stock. The Contractor shall have sufficient Ready-For-Issue Sights available to meet the demand of repair.

Question 20: Para 3.7.3 Non-Warranty Repair requires the contractor to repair returned sights or replace with new equipment within 14 days. Same questions as above.

Answer: Para 3.7.3 Same response as Answer to Question 19 above.

Question 21: Warranty - Will the Government identify the maximum quantity of systems they would return for warranty repair per month?

Answer: No, it is unknown at this time the MTBF of the Sight. Therefore, the Government cannot estimate the number of failed items per month. The Government cannot identify at this time a maximum quantity of systems to be returned for warranty repair per month.

Question 22: Non-Warranty - Will the Government identify the maximum quantity of systems they would return for non-warranty repair per month?

Answer: No, it is unknown at this time the MTBF of the Sight. Therefore, the Government cannot estimate the number of failed items per month. The Government cannot identify at this time a maximum quantity of systems to be returned for non-warranty repair per month. The amount to be proposed by the contractor in its cost proposal has been set forth in the solicitation per configuration.

Question 23: In SOW para 3.1, each of the three CLIN's identify the Remington 300 as one of the weapons which will require a mounting rail. Since this was an unknown weapon, Remington was contacted and we were advised that the only model 300 they have is an over-under shotgun. They suggested a possibly that what the government meant was the 300 WinMag .

Answer: SOW para 3.1 has been corrected to state Remington 300 WINMAG.

Question 24: **SOW para 3.1. We require clarification on the mounting requirements for a Remington 300. Specifically, is our assumption correct that the requirement may be for the 300 WinMag?**

Answer: Yes, the mounting requirements are for a Remington 300 WINMAG. Reference SOW para 3.1.

Question 25: SOW para 3.1. For each of the 3 CLINS there are multiple requirements for a *"Picatinny type standard rail (MIL-STD-1913)"*, one for each of the weapon platforms. Is the contractor to assume that the different weapon platforms do not have an organic Picatinny or MIL-STD-1913 type mounting rail?

Answer: SOW para 3.1. Requirement for rails have been removed.

Question 26: SOW para 3.1. For purposes of quoting the different mounts for the production quantities, will the standard Picatinny / MIL-STD-1913 be required for all weapon platforms. As an example it is our understanding that the Picatinny rail is already included on previously fielded M24 / 300 WinMag. Both of these weapons use the Remington 700 long action receiver and would therefore use the same exact rail. Also the 1913 rail is already included on the SR-25. Please clarify if this is not the case as mounting rails are relatively high cost items.

Answer: Per SOW para 3.1.1.2, 3.1.2.1, and 3.1.3.2, mounting will be to the Standard Rails on the Weapons identified.

Question 27: SOW Para 3.7.2. Clarify that NSWC will be the shipping point for repairs.

Answer: Yes, the shipping address will be from the OEM to NSWC Crane. NSWC Crane will perform all inspection/acceptance testing. The RFP includes the following provision in Section "F" page 13:

PLACE OF DELIVERY (5707)

The material to be furnished hereunder shall be delivered F.o.b. destination with all transportation charges paid by the supplier to the following address unless otherwise specified by individual delivery order:

Mr. Bill Helms
Building 3291
NSWC, Crane
Crane, IN 47522

The contractor shall schedule deliveries under this contract to ensure arrival at destination only on Monday through Friday (excluding holidays) between the hours of 7:00 AM and 2:00 PM EST, or when the destination is accepting deliveries.

Question 28: SOW Para 3.7.3. If government decides not to repair the unit, will government still pay evaluation charge?

Answer: Yes, the Government will pay for an evaluation charge if priced as such in the cost of the Repair. This evaluation charge will be called "failure analysis" IAW SOW paragraph 3.7.3.

Question 29: SOW Para 3.7.3. Recommend direct labor rates not be used for this contract. Use a firm fixed unit cost for the level of repair or else, it will have to be under a time and material basis.

Answer: CLIN 0004, Non-Warranty failure analysis and repair will be ordered on a Time and Materials basis. SOW paragraph 3.7.3 has been revised to reflect the Government's desire to price all non-warranty repairs on a T&M Basis.

Question 30: SOW Para 3.7.3.2. Recommend change "like new" to "serviceable".

Answer: Yes, the SOW has been changed to include to repair to a serviceable condition.

Question 31: SOW Para 3.7.3.3. Conflict with SOW Para 3.7.3.2 "like new".

Answer: Corrected by SOW change to include to repair to a serviceable condition.

Question 32: What is the minimum quantity the Government will order for each delivery order?

Answer: The Government reserves the right to procure any quantity being proposed by the offeror. The minimum quantity to be ordered under each delivery order is set forth in the RFP, Section I, page 18, as follows:

ORDER LIMITATIONS (OCT 1995) (FAR 52.216-19)

(a) **Minimum Order. When the Government requires supplies or services covered by this contract in an amount of less**
than 1 of each configuration , the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.
(b) Maximum Order. The Contractor is not obligated to honor--
(1) Any order for a single item in excess of 1,175 for CLIN 0001, 1,725 for CLIN 0002 and 1,300 for CLIN 0003

(2) Any order for a combination of items in excess of 4,200.

Question 33: SOW Para 3.4.2. Will Government be willing to pay for the monthly status reports?

Answer: No. There shall be no additional charge to the Government. CDRLS will be not separately priced (NSP).

Question 34: SOW Para 3.7.1. Clarify the government's position of life cycle support for 5 years when warranty is only for 3 years.

Answer: The Contract is for a 5-year period. The Government has requested that offerors propose their standard warranty at no cost to the Government. The proposed standard warranty will be evaluated. The Government has requested a three-year extended warranty be proposed included with the sight. The Contractor shall provide life cycle support for the life of the contract, which is 5 years. Reference SOW paragraphs 3.7.1 and 3.7.2 for clarification.

Question 35: SOW Para 3.7.2, Extended Three-Year Warranty. In order to meet the 14-day turn around time, government needs to fund up front replacement spares and parts/subassemblies.

Answer: The 14 day turn around time shall apply for extended three-year warranty repairs. The Government shall not fund spares or parts / subassemblies for extended three-year warranty repairs. The Contractor shall be responsible for funding up front replacement spares and parts/subassemblies and for having sufficient quantity of spares and replacement parts on hand to perform extended three-year warranty repair. SOW para 3.7.2 has been revised.

Question 36: SOW Para 3.7.3, Non-warranty Failure Analysis and Repair. Government will have to purchase any replacement units covered under non-warranty provisions.

Answer: Agree. If a failed Sight is beyond economical repair, the Government may choose to replace the Sight at its discretion via procuring a new Sight under CLINS 0001, 0002 or 0003. SOW Para 3.7.3 has been revised.

Question 37: SOW Para 3.7.3. Best Economical Replacement needs to be established at either 65% or 80% of systems cost.

Answer: The Best Economical Replacement is identified at 65 percent in the SOW para 3.7.3

Question 38: SOW Para 3.7.3. Please clarify last sentence of 3.7.3

Answer: The former last sentence of 3.7.3 has been deleted and is clarified in revised SOW.

Question 39: SOW Para 3.7.4. Damage caused by the government while performing O-level support nullifies warranty coverage.

Answer: No change incorporated to SOW para 3.7.4. If an offeror proposes that damage caused by the Government while performing O-level support nullifies warranty coverage, this will not meet the requirement of the solicitation or SOW paragraph 3.7.4.

Question 40: SOW Para 3.7.3.1. Include that the contractor has to concur with NSWC's failure analysis evaluation prior to acceptance of unit.

Answer: No change incorporated. The failure analysis will be performed by the contractor and NSWC Crane will concur with the contractor's failure analysis prior to repair.

Question 41: SOW Para 3.7.3.3. This should be at mutual agreement between both parties.

Answer: No change incorporated.

Question 42: Paragraph 3.4.3 of specification PS/02/805/022 requires mounting interface for the Barrett 0.50 caliber bolt-action XM107. We were advised that the "X" had been dropped and the rifle is now the M107. Also, based on previous information received, it was our understanding that the semi-automatic M82 A1 (not the M107) had been selected. Please confirm if the 0.50 caliber will be the bolt-action M107 or the semi-automatic M82 A1.

Answer: For clarification, the government may utilize model number XM107 when guns are procured in the future. The XM107 is the modified version of the current Marine Corp 0.50 caliber M82 A3. The PS paragraph 3.4.3 has been changed to delete the requirement to mount to the .50 Caliber Barrett XM107 as a Go/No Go requirement (threshold). PS Paragraph 3.4.3.1 has been added which makes mounting interface for the .50 Caliber Barrett XM107 an objective.

Question 42: Request clarification on para 3.3.2 of the SOW conflicts with the Inspection & Acceptance (ORIGIN) 5607. Is this contract destination or origin?

Answer: SOW 3.3.2 states that Inspection and acceptance shall be conducted at destination. This is correct. Page 10 of the RFP incorrectly states Inspection and acceptance at Origin. The Inspection and Acceptance at Origin is hereby deleted. See # 3. below.

Question 43: Page 4 of solicitation, is the government requesting range pricing for the CLINs?

Answer: Not range pricing but pricing at the quantities specified. As explained on the previous page of the RFP, in the Note: "In order to allow the Government to benefit from economics of scale, offerors shall permit the interpolation of prices for any quantities listed between those listed in the proposed pricing matrix." To further explain, as an example, for CLIN 0001, offerors shall provide a price for a quantity of 1, 251, 501, 1,001, and 1,175. The formula shall be utilized for quantities that fall in-between those listed on page 4.

Question 44: Page 3 and Page 43 conflicts on the # of units required. Please clarify the basis of award.

There is no conflict. Page 3 sets forth the minimum and maximum numbers to be procured under pending contract(s). Page 43 sets forth the evaluation quantities at which the Government will arrive at the total evaluated contract price(s). The prices proposed by offerors on page 4 will be utilized to arrive at the total evaluated contract price(s).

Question 45: Page 7, SOW, para 3.7.3, request clarification on the spare sights. Will the government purchase and provide or does the contractor have to furnish as part of the scope of work?

The Contractor shall be responsible for funding up front replacement spares and parts/subassemblies and for having sufficient quantity of spares and replacement parts on hand to perform extended three-year warranty repair as part of the scope of work.

2. Solicitation CLIN 0003 is changed to read as follows:

0003	Night Sight capable of daytime firing IAW SOW Para 3.1.3 with Accessories. **Accessories include AA Batteries, Daylight Cover (with lanyard), Lens Cleaning Kit, Operator /Maintenance Manual, Soft Carrying Case (To be evaluated IAW the SOW and PS), Training and Training Support IAW SOW para 3.7.5, and Standard Commercial Warranty**	Min 1 1,300 Max	EA EA	

3. Inspection and Acceptance (Origin) (5607) on page 10 is hereby removed. Inspection and Acceptance shall be at destination. The following clauses are hereby added.

INSPECTION AND ACCEPTANCE LANGUAGE FOR F.O.B. DESTINATION (5604)

Item(s) 0001 - Inspection and acceptance shall be made at destination by a representative of the Government.

52.247-34	F.o.b. Destination	Nov 1991

CLINS 0001, 0002, 0003, and 0005, and 0006 shall be quoted F.o.b. Destination.

For CLIN 0004, Non Warranty Failure Analysis and repair, Shipping costs will be F. o. B. Origin and prepaid by the contractor. The contractor shall propose actual shipping charges along with cost proposal for delivery order placement for Failure Analysis and repair on non-warranty repairs. Contractor will be reimbursed for shipping charges when invoice is paid. The Solicitation is hereby modified to reflect the following for CLIN 0004:

52.247-32	F. o. b. Origin, Freight Prepaid	Jun 1988

All other contract CLINS shall reflect F.o.B. Destination pricing. Warranty repairs shall be F.o.B. destination.

4. Solicitation Subfactor B – Logistic Capability; Standard 5: is changed to read as follows:

5.a. Standard Warranty. Describe in detail how you plan to comply with the Government's standard warranty requirement in SOW paragraph 3.7.1. for warranty repair turn around time not to exceed 14 calendar days including shipping time. Describe how you plan to have sufficient quantities of spares and replacement parts on hand to perform standard warranty repair. Describe how you plan to provide a replacement unit under the standard warranty if the unit to be repaired and returned to the Government cannot be repaired and returned within the 14 calendar days.

5.b. Extended Three-Year Warranty. Describe in detail how you plan to comply with the Government's requirements in SOW paragraph 3.7.2. for extended three-year warranty repair turn around time not to exceed 14 calendar days including shipping time. Describe how you plan to have sufficient quantities of spares and replacement parts on hand to perform standard warranty repair. Describe how you plan to provide a replacement unit under the extended three-year warranty if the unit to be repaired cannot be repaired and returned to the Government within the 14 calendar days.

5.c. Non-Warranty Failure Analysis And Repair Three-Year Warranty. Describe in detail how you plan to comply with the Government's requirements in SOW paragraph 3.7.3. for non-warranty failure analysis and repair. Explain how you plan to comply with required turn around time not to exceed 14 calendar days including shipping time. Describe how you plan to have sufficient quantities of spares and replacement parts on hand to perform non-warranty repair.

This instruction as printed is an UNCONTROLLED COPY unless officially stamped and numbered as such and may not represent the latest revision.

PERFORMANCE SPECIFICATION
FOR
VISUAL AUGMENTATION SYSTEMS
NIGHT VISION DEVICES

IN SUPPORT OF INOD-EA PROGRAM

NIGHT VISION and CHEM/BIO DEPARTMENT
MICROWAVE SYSTEMS DIRECTORATE
NAVAL SURFACE WARFARE CENTER, CRANE DIVISION

APPROVED BY:

Team Leader
Special Warfare Team

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

RECORD OF CHANGES AND REVISIONS			
Change Number	Date	Pages Affected	Reason

1.0 SCOPE. This specification sets forth the performance requirements for Visual Augmentation Systems (VAS) In Line Clip-On/Night Sight, hereafter referred to as the Sight.

1.1 BACKGROUND. This acquisition is designated an evolutionary acquisition utilizing a best value approach. This acquisition is a follow-on to the original material solution for the Integrated Day/Night Fire Control Observation Device (INOD) (AN/PVS-19). This follow-on acquisition will serve as a bridge until technology has matured where a full material solution can be achieved. The approach is to accept a family of sniper sights to meet the requirements of the JORD addendum dated 22 January 2000. This approach allows for three configurations of the Sight, which provides the operator a choice of configurations depending on mission specific requirements. The three configurations are an in line/clip-on image intensification sight for use with either a supplied variable power dayscope and/or the existing dayscope, and an image intensification sight that can also be used during the daytime.

2.0 APPLICABLE DOCUMENTS. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the latest issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto.

2.1 Military Standards

MIL-STD-129N	Standard Practice for Military Marking dtd 15 May 97

2.2 Non-Government Standards and Other Publications

ANSI/ASQC Q9001	Quality Systems – Model for Quality Assurance in Design/Q9000:1994 Development, Production, Installation and Servicing

2.3 Other

Addendum to the Integrated Day/Night Fire Control Observation Device (INOD) Joint Operational Requirement Document (JORD) dtd 22 January 2000.

Joint Pub. 1-02, DOD Dictionary of Military and Associated Terms

3.0 REQUIREMENTS.

3.1 Qualification and Conformance Inspections. The Go/No Go tests consist of basic tests to determine if a Sight meets a few of the minimum requirements of this performance specification. All Sights shall meet the threshold size, weight, mount bracket(s), and system resolution requirements (paragraphs 3.4.1, 3.4.2, 3.4.3, and 3.5.1) to be considered for further testing. A sample Sight shall be subjected to the qualification inspection in accordance with 4.2. Otherwise, Sight(s) will be subjected to the conformance inspections in accordance with 4.3.

3.2 System Description. The Sight shall have three possible configurations. The first configuration is an in line/clip-on image intensification sight for use with a supplied variable power dayscope. The second configuration is an in line/clip-on image intensification sight for use with the existing dayscope. The third configuration is an image intensifier sight that can also be used during the daytime. All systems shall use an 18mm GEN III/OMNI IV auto-gated image intensifier tube as a minimum. Throughout this specification, there are (threshold) and (objective) requirements, in parentheses. Threshold denotes the minimum acceptable requirements and objective denotes the desired requirements.

NOTE: In line/clip-on sights accompanied by a dayscope shall provide variable power capabilities as low as possible on the low end and no lower than 10X on the high end. Weight, size, form, and function shall be comparable to the fixed 10X Leupold MK 4 M3 40mm scope. The shooting position shall be the same as current fielded rifles.

3.3 Major Components.

a) Sight (including variable magnification dayscope, if applicable)
b) Mounting Bracket(s)
c) AA Batteries
d) Daylight/Lens Cover (with lanyard)

e) Coupling device (if applicable)
f) Lens Cleaning Kit
g) Operators Manual
h) Soft Carrying Case

3.4 Physical Characteristics.

3.4.1 Size. (Go/No Go)

a) An in line/clip-on type sight that works with a dayscope shall be no longer than 7 inches (objective), 9 inches (threshold) excluding the dayscope.

b) A night sight that can also be fired during daylight shall be no longer than 8 inches (objective), 10 inches (threshold).

3.4.2 Weight. (Go/No Go)

a) An in line/clip-on type sight that works with a dayscope shall weigh no more than 1.2 pounds (objective), 2.2 pounds (threshold) excluding the dayscope.

b) A night sight that can also be fired during daylight shall weigh no more than 2 pounds (objective), 3.2 pounds (threshold).

3.4.3 Mounting Bracket. (Go/No Go) The Sight(s) shall include separate mounts that shall attach to the standard rail (MIL-STD-1913) and the Leupold/Weaver rail currently on the M24 Sniper Rifle. Sight(s) shall also include appropriate hardware to mount to the MK-11 (SR-25), the Remington 300 (if not already fitted with standard or Leupold/Weaver rails). The shooting position shall be the same as current fielded rifles.

3.4.3.1 Mounting Bracket. The Sight(s) shall also include appropriate hardware to mount to the .50 Cal Barrett XM107 (objective). The shooting position shall be the same as current fielded rifles.

3.4.4 Battery. The Sight(s) shall have a battery compartment that allows use of both DOD common lithium and standard AA batteries (1.5 Vdc). The battery(s) shall be able to be replaced by the operator with one hand, without using tools, and without removing the sight from the weapon. The battery lid shall have a lanyard connected to the body of the sight. The Sight(s) shall have battery polarity indicators (threshold) or be capable of operating regardless of the battery orientation (objective).

3.4.5 Daylight/Lens Cover. A daylight/lens cover shall be provided for protection of the objective lens and to allow operation in the daytime. It shall remain attached to the Sight when not in use. The daylight/lens cover shall provide impact protection, e.g. drop protection for the objective lens housing (objective).

3.4.6 Coupling Device. The Sight shall include a rubber coupling device to block light leakage at the interface between the dayscope objective lens and in line/clip-on sight configuration

3.4.7 Lens Cleaning Kit. The lens cleaning kit shall consist of a 1 ounce plastic bottle of anti-fog solution, lens brush, and lens cleaning paper booklet and fit within the soft carrying case.

3.4.8 Soft Carrying Case. The Sight shall have a padded soft carrying case that provides space for the components listed in paragraph 3.3, excluding the dayscope. The case shall be made of nylon with closed cell foam padding. It shall also have two ALICE clips on its rear surface for web belt mounting, a zipper closure, and a FASTEX style clip (objective).

3.4.9 Reticle.

a) In line/clip-on sights need not have a reticle. The provided dayscope shall have a mil-dot reticle the same as the current Leupold MK 4 M3 40mm dayscope.

b) Night sights that can be fired during daylight shall have a mil-dot reticle (threshold), and be capable of accepting a reticle design selected by the operator (objective).

3.4.10 Surfaces. External surfaces (except for light transmitting elements) shall be finished in a flat black color that is non-reflective and corrosion resistant. The external lens and eyepiece shall not be obscured by condensation. The Sight shall have corrosion resistant and scratch resistant coatings on all exposed optics, which permit operation in salt sprays and blowing sand. All internal surfaces (except light transmitting elements), that are exposed to light from external and internal sources, shall be finished to achieve the lowest feasible light reflectance.

3.4.11 Display and Controls. The Sights shall contain a visible low battery indicator. Both the windage and elevation controls shall be indicated with ½and 1 minute of angle (MOA) per click respectively or better (as small as ¼MOA per click is acceptable). The clicks shall be positive as well as visible during daylight. The windage and elevation controls shall be able to be operated (set) without the need of any tools. The Sight shall use a side mounted range focus knob to minimize exposure of the sniper in a hide position (objective). All controls shall be easy to reach and operate.

3.5 Performance Characteristics.

3.5.1 System Resolution. (Go/No Go) **The in line/clip-on sight with a dayscope shall have an on-axis limiting resolution of a minimum of 3.1 line pairs/ milliradian (lp/mr). The night sight shall have an on-axis limiting resolution of a minimum of 3.6 lp/mr.**

3.5.2 Battery Life. **The Sight(s) shall able to operate, without a change of batteries, full on for a minimum of 12 hours (threshold) and full on for a minimum of 24 hours (objective).**

3.5.3 Security (objective). The Sight(s), while operating, shall not emit noise that is detectable by human ear at a distance beyond five meters in any direction. The Sight(s), while operating, shall not emit light that is detectable by human eye or GEN II/III device in any direction at a distance beyond five meters. A detachable lens hood or similar glare reduction device is recommended.

3.5.4 Accuracy. The Sight(s) shall allow a trained sniper to maintain his current level of accuracy (threshold)*, and deliver precise fire within one minute of angle (1 MOA) (objective). The definition of current level of accuracy is that firing accuracy shall not be less than the standard issue AN/PVS-10 night sight's accuracy to hit the target at night.

*** Any Sight placed on the weapon shall not degrade the shooters current level of accuracy. If a weapon is good to 1 MOA accuracy, then even with all other factors, environment, shooter, ammo, etc., taken into account, the shooter shall be able to maintain that level of accuracy or whatever accuracy he can attain with his current scope.**

3.5.5 Reticle Adjustments. Both the windage and elevation controls shall be ½and 1 MOA per click respectively or better (as small as ¼MOA per click is acceptable). The clicks shall be positive and tactile as well as visible during daylight. Adjustments shall also have positive stops.

3.5.6 Repeatability (objective). The Sight(s) shall not lose more than 0.5 MOA of accuracy when repeatedly removed from the weapon and replaced (objective).

3.5.7 Waterproof/Immersion. The Sight(s) is to be waterproof down to 3 feet of water for 4 hours without a waterproof bag (threshold). The Sight(s) is to be waterproof and pressure resistant down to 66 feet of seawater (29.4 psig) for 2 hours without a waterproof bag (objective).

3.5.8 Climatic Design. The Sight(s) shall be able to operate at temperatures between -40 to +120 degrees Fahrenheit (-40 to +49 degrees Celsius).

3.5.9 Salt Fog. All external surfaces shall be rust and salt water corrosion resistant.

3.5.10 Mobility and Transportability. The Sight(s) shall survive most military methods of transport/infiltration to include HMMWV, cargo aircraft, helicopters, static line airborne operations, Fast Boats, and Submersible Diving Vehicles (SDVs).

3.5.11 Compatibility. The cheekweld, sight picture, and eye relief shall be achieved by JSOF operators while wearing various uniforms, equipment, and possibly eyeglasses appropriate for each individual mission. The shooting position shall be the same as current fielded rifles.

3.5.12 Reliability. The Sight(s) shall have a 90% probability of operating 36 hours on a 3-day mission without failure (threshold). The Sight(s) shall have a 90% probability of operating 48 hours on a 4-day mission (objective).

3.5.13 Range.

a) Starlight conditions: Recognize a standing man at ranges of 400 meters (threshold), 700m (objective). Recognition, according to Joint Pub. 1-02, DOD Dictionary of Military and Associated Terms, is defined as "the determination that an object is similar within a category of something already known: e.g., tank, truck, man".

b) Starlight conditions: Detect a vehicle at ranges of 850m (threshold), 1000m (objective). Detection, according to Joint Pub. 1-02, DOD Dictionary of Military and Associated Terms is defined as "in tactical operations, the perception of an object of possible military interest but unconfirmed by recognition".

c) In ¼moonlight conditions: Recognize a standing man at ranges of 700m (threshold), 1000m (objective).

d) In ¼moonlight conditions: Detect a vehicle at ranges of 1200m (threshold), 1500m (objective).

3.5.14 Laser Survivability (objective). The Sight(s) shall include built-in or add-on capability to reduce probability of detection by laser or other counter-optics detection system to less than 10% of the detectability of the same system without protection (objective).

3.6 Workmanship. The Sight(s) optical components shall not contain foreign matter—such as dust, dirt, fingerprints, or moisture—that can be detected by visual examination. Joints and seams shall be a tight fit, and electrical wiring shall be secure and without unbroken insulation. All assemblies shall be free from cracks, splits, cold flow, shrinkage, inclusions, porosity, or any similar characteristics. Threads shall be full and undamaged for the entire length or depth. All moving parts shall be examined to insure that they move freely throughout their entire range without sticking, binding, or creeping.

3.7 Marking. The Sight(s) shall be etched with the following information:

a) Sight(s) name and nomenclature
b) Sight(s) unique serial number
c) Sight(s) part number and revision level
d) Warranty expiration date
e) Manufacturer
f) Contract number

4.0 VERIFICATION.

4.1 Classification of Inspections.

a) Qualification Inspections (see 4.2)
b) Conformance Inspections (see 4.3)

4.2 Qualification Inspections. Qualification inspections shall be performed on one of each Sight configuration. This inspection shall include the examinations of 4.4 and the tests of 4.5.1 through 4.5.8 and 4.6.

4.3 Conformance Inspections. Conformance inspections shall include the examinations of 4.4 and the tests of 4.5.1 through 4.5.3 and 4.5.6.

4.4 Examinations. Each Sight configuration shall be examined for compliance with the requirements specified in 3.3, 3.4, 3.6, and 3.7.

4.5 Tests.

4.5.1 System Resolution. **The Sight system resolution shall be evaluated and measured at an optimum light level using a 100% contrast 1951 USAF resolution target. The Sight system resolution shall meet or exceed the requirements of 3.5.1.**

4.5.2 Battery Life. **The Sight(s) shall be operated, without a change of batteries, and while full on for up to a minimum of 12 hours (threshold) and full on for a minimum of 24 hours (objective) by installing new battery(s) and operating at highest setting all sight options e.g. reticle brightness and tube brightness.**

4.5.3 Security (objective). The Sight(s) shall be evaluated for noise and light emission to determine conformance to 3.5.3. Place a single Sight, in a full on operating mode, in a dark room a distance of five meters from the observation point. The observer shall listen for noise emitted from the Sight in any direction at a distance of beyond five meters to determine compliance to 3.5.3. The observer shall view the Sight with the naked eye and through a GEN II/III device in any direction at a distance of beyond five meters to determine compliance to 3.5.3. A detachable lens hood or similar glare reduction device is recommended.

4.5.4 Accuracy. The Sight(s) shall allow a trained sniper to maintain his current level of accuracy as a (threshold)*, and deliver precise fire within one minute of angle (1 MOA) (objective).

*** Any Sight placed on the weapon shall not degrade the shooters current level of accuracy. If a weapon is accurate to 1 MOA accuracy, then with all other factors: environment, shooter, ammunition, etc., factored in, the shooter shall be able to maintain that level of accuracy.**

4.5.5 Repeatability. The Sight(s) shall be detached and reattached at least five times and maintain boresight within 0.5 MOA of accuracy (objective).

4.5.6 Waterproof/Immersion. The Sight(s) shall be immersed to a depth of 3 feet of water for 4 hours without a waterproof bag (threshold) to determine conformance to 3.5.6. The Sight(s) is to be water-resistant and pressure resistant down to 66 feet of seawater (29.4 psig) for 2 hours without a waterproof bag (objective).

4.5.7 Climatic Design. The Sight(s) shall be subjected to temperatures between -40 to +120 degrees Fahrenheit (-40 to +49 degrees Celsius). The Sight(s) shall be stabilized for 30 minutes starting at –40 degrees F and then in increments of 20 degrees F up to +120 degrees F.

4.5.8 Salt Fog. External surfaces shall be rust and salt water corrosion resistant when immersed in a 5% salt-water solution for 48 hours followed by a 48 hour drying period.

4.6 <u>Operational Evaluation</u>.

4.6.1 Operational Suitability. The cheekweld, sight picture, and eye relief shall be achieved by JSOF operators while wearing various uniforms, equipment and possibly eyeglasses appropriate for each individual mission. The shooting position shall be the same as current fielded rifles. The operational suitability goal is for the Sight(s) to maximize human factors performance, suit operator preference, minimize fatigue, and be highly compatible with JSOF equipment. The adjustment knob(s) shall be effectively usable with anti-contact hand protection (cold weather, scuba, or Chemical, Biological, Radiological gloves). The Sight(s) shall be operable by right or left-handed operators. The Sight shall be designed with the minimum amount of sharp edges and protruding parts. The Sight(s) will be tested (and required to survive) in typical operational scenarios to include boat transit and airborne (free fall and static line) operations in a soft case (on weapon or individually). These units will be required to withstand all impacts and shocks, air and water pressure variations, salt spray, sand, silt, and mud associated with these operations (including 8 hours at a depth of 20 feet and lockout at a depth of 40 feet for 1 hour) without degradation in performance (corrective action will be required for any failures) (objective).

4.6.2 Operational Effectiveness. The Sight(s) shall have a 90% probability of operating 36 hours on a 3-day mission without failure (threshold). The Sight(s) shall have a 90% probability of operating 48 hours on a 4-day mission (objective). The Sight(s) should also be capable of the following:

a) Starlight conditions: Recognize a standing man at ranges of 400 meters (threshold), 700m (objective). Recognition, according to Joint Pub. 1-02, DOD Dictionary of Military and Associated Terms, is defined as “the determination that an object is similar within a category of something already known: e.g., tank, truck, man”.

b) Starlight conditions: Detect a vehicle at ranges of 850m (threshold), 1000m (objective). Detection, according to Joint Pub. 1-02, DOD Dictionary of Military and Associated Terms is defined as "in tactical operations, the perception of an object of possible military interest but unconfirmed by recognition".

c) In ¼moonlight conditions: Recognize a standing man at ranges of 700m (threshold), 1000m (objective).

d) In ¼moonlight conditions: Detect a vehicle at ranges of 1200m (threshold), 1500m (objective).

4.7 Workmanship. The Sight(s) optical components shall not contain foreign matter—such as dust, dirt, fingerprints, or moisture—that can be detected by visual examination. Joints and seams shall be a tight fit, and electrical wiring shall be secure and with unbroken insulation. All assemblies shall be free from cracks, splits, cold flow, shrinkage, inclusions, porosity, or any similar characteristics. Threads shall be full and undamaged for the entire length or depth. All moving parts shall be examined to insure that they move freely throughout their entire range without sticking, binding, or creeping.

4.8 Marking. The Sight(s) shall be etched with the following information:

a) Sight(s) name and nomenclature
b) Sight(s) unique serial number
c) Sight(s) part number and revision level
d) Warranty expiration date
e) Manufacturer
f) Contract number

5.0 PACKAGING. Packaging shall prevent mechanical damage of the Sight(s) during shipping and handling and shall not be detrimental to the Sight(s).

6.0 NOTES.

6.1 Technical Interpretations. The following technical interpretations are, when referenced in sections 3, 4, or 5, mandatory for this specification.

6.1.1 Damage. Damage is defined as:

a) Electrical failure or malfunctioning intermittent or continuous including arcing, corona, flashing, bright spots, flickering, blinking, or unless otherwise specified a change in input current greater than +/- 1.0 milliamperes.
b) Cracks, breakage, deformation, corrosion, or deterioration of any part or finish, and missing or loose components.
c) Degradation of image quality including ion noise, dark spots, or shading.

6.1.2 Degradation of Performance. Degradation of performance is defined as the diminishment of any performance parameter to a level below the specified acceptable limit, including but not limited to reliability, maintainability, safety, and static performance characteristics such as seals, optical coatings, and the condition of materials (brittleness of plastics, weakened seals or deformed plastics).

6.1.3 Ambient Temperature. Ambient temperature is defined as + 73 degrees with tolerances of +18 and –3.6 degrees Fahrenheit (+23 degrees Celsius with tolerances of +10 degrees Celsius and –2 degrees Celsius).

6.1.4 Threshold and Objective. Threshold denotes the minimum acceptable requirements and objective denotes the desired requirements.

6.1.5 Go/No Go. Go/No Go defines the basic tests used to determine if a Sight meets a few of the minimum requirements of this performance specification. All Sights shall meet the threshold size, weight, mount bracket(s), and system resolution requirements (paragraphs 3.4.1, 3.4.2, 3.4.3, and 3.5.1) to be considered for further testing.

STATEMENT OF WORK
FOR
VISUAL AUGMENTATION SYSTEMS

NIGHT VISION DEVICES

IN SUPPORT OF INOD-EA PROGRAM

N00164-02-R-8512

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STATEMENT OF WORK
FOR
VISUAL AUGMENTATION SYSTEMS
NIGHT VISION DEVICES
IN SUPPORT OF
INOD-EA PROGRAM

1.0 SCOPE. This Statement of Work (SOW) sets forth the requirements for the procurement of a non-developmental item NDI) for a family of Visual Augmentation Systems (VAS) Night Vision Device (NVD). Those systems may include three configurations as part of this Evolutionary Approach solution.

- "Clip-on" image intensification night sight (in line) with a variable power dayscope with accessories. Accessories include Mounting Brackets, AA Batteries, Daylight Cover (with lanyard), Lens Cleaning Kit, Operation/Maintenance Manual, Soft Carrying Case, Training Material and Services.
- "Clip-on" image intensification night sight (in line) with accessories. Accessories include Mounting Brackets, AA Batteries, Daylight Cover (with lanyard), Lens Cleaning Kit, Operator/Maintenance Manual, and Soft Carrying Case.
- Night Sight Capable of daytime firing. (Same as above configuration excluding the variable magnification dayscope).

The "clip-on" image intensification night sight (in line) with a variable power day scope and/or night sights capable of daytime firing shall be referred herein as Sight(s). The Production Baseline (PBL) shall be established at the time of contract award, which may include minor modifications recommended by the government during user negotiations based on user evaluation testing of product sample hardware. The Government reserves the right to procure the "clip-on" image intensification night sight (in line) without its variable dayscope. This SOW provides for the procurement, test, system spares, repairs, configuration management (CM), technical documentation and Contractor Logistics Support (CLS) for the Sight(s).

1.1 BACKGROUND. This acquisition is designated an evolutionary acquisition utilizing a best value approach. This acquisition is follow-on to the original material solution for the Integrated Day/Night Fire Control Observation Device (INOD) (AN/PVS-19). This acquisition will serve as a bridge until technology has matured where a full material solution is achieved.

2.0 LISTING OF APPLICABLE DOCUMENTS. The following specifications and standards form a part of this SOW to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the latest issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto.

2.0 Performance Specification

Performance Specification, Visual Augmentation Systems In line Clip-On / Night Sight

2.1 Military Standards

MIL-STD 129N	Standard Practice for Military Marking dtd 15 May 97
MIL-PRF-49506	Logistics Management Information dtd 11 Nov 96
MIL-STD-1913	Dimensioning of Accessory Mounting Rail for Small Arms Weapons dtd 10 Jun 99

2.2 Department of Defense Handbooks

MIL-HDBK-61A	Configuration Management Guidance dtd 7 Feb 01

2.3 Non-Government Standards and Other Publications

ANSI/ASQC Q9001 Quality Systems – Model for Quality Assurance in
Design/Q9000:1994 Development, Production,
Installation and Servicing

TMCR TMCR No. NDMS-020151-00

2.5 Order of Precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence. Nothing in this document shall supersede applicable Federal, State, or Local Laws and regulations unless a specific exemption has been obtained.

2.6 Availability of DoD Documents. Government specifications, standards and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. Non-Government Publications are available from the National Standards Institute, 11 West 42nd Street, New York, NY 10036.

3.0 REQUIREMENTS.

3.1 General. The Contractor shall provide production "clip-on" image intensification night sight (In line) with a variable power day scope, "clip-on" image intensification night sight (In line) without a variable power day scope and / or night sights capable of daytime firing in accordance with (IAW) the performance requirements contained in the Performance Specification reference in paragraph 2.1 and the appropriate configuration listed below.

3.1.1 The Contractor shall provide, as a minimum, with each delivered "clip-on" image intensification night sight (in line) and dayscope configuration the following:

3.1.1.1 A variable power day scope.

3.1.1.2 The Contractor shall provide the following with each delivered for the M-24 Standard Sniper Weapon System (WSW):

3.1.1.2.1 Mounts for dayscope (including standard issue 10X Leupold MK 4 M3 40mm scope) including any height adjustment rings.

3.1.1.2.2 Mounts for clip-on sight.

3.1.1.3 Detachable connecting hoods for night sight to dayscope connection.

3.1.1.4 The Contractor shall provide the following with each delivered for the MK-11 (SR-25), Remington 300 WINMAG Sniper Rifle, and .50 caliber Barrett XM107:

3.1.1.4.1 Mounts for dayscope including any height adjustment rings.

3.1.1.4.2 Mounts for clip-on sight.

3.1.1.5 System shall include an Operators/Maintenance Manual with each delivered system.

3.1.1.6 Lens Cover with lanyard.

3.1.1.7 Batteries.

3.1.1.8 Soft carrying case.

3.1.1.9 Lens cleaning kit.

3.1.1.10 Standard Commercial Warranty

3.1.2 The Contractor shall provide, as a minimum, with each delivered "clip-on" image intensification night sight (in line) configuration the following:

3.1.2.1 The Contractor shall provide the following with each delivered for the M-24 Standard Sniper Weapon System (WSW):

3.1.2.1.1 Mounts for dayscope (including standard issue 10X Leupold MK 4 M3 40mm scope) including any height adjustment rings.

3.1.2.1.2 Mounts for clip-on sight.

3.1.2.2 Detachable connecting hoods for night sight to dayscope connection.

3.1.2.3 The Contractor shall provide the following with each delivered for the MK-11 (SR-25), Remington 300 WINMAG Sniper Rifle, and .50 caliber Barrett XM107:

3.1.2.3.1 Mounts for dayscope including any height adjustment rings.

3.1.2.3.2 Mounts for clip-on sight.

3.1.2.4 System shall include an Operators/Maintenance Manual with each delivered system.

3.1.2.5 Lens Cover with lanyard.

3.1.2.6 Batteries.

3.1.2.7 Soft carrying case.
3.1.2.8 Lens cleaning kit.
3.1.2.9 Standard Commercial Warranty

3.1.3 The Contractor shall provide, as a minimum, with each delivered night sight capable of daytime firing the following:
3.1.3.1 The Contractor shall provide the following with each delivered for the M-24 Standard SWS:
3.1.3.2 The Contractor shall provide the following with each delivered for the MK-11 (SR-25), Remington 300 WINMAG Sniper Rifle, and .50 caliber Barrett XM107:
3.1.3.3 System shall include an Operators/Maintenance Manual with each delivered system.
3.1.3.4 Lens Cover with lanyard.
3.1.3.5 Batteries.
3.1.3.6 Soft carrying case.
3.1.3.7 Lens cleaning kit.
3.1.3.8 Standard Commercial Warranty

3.2.1 Post Award Conference. The Contractor shall host a two-day Post Award Conference within 20 working days after contract award. A copyright release letter shall be provided to authorize the Government unconditional rights to reproduce and use the submitted contract information for official Government business use. An exact date for the post-award conference shall be mutually agreed upon at contract signing.

3.3 QUALITY.

3.3.1 Quality Program. The Contractor shall establish, implement, document and maintain a quality system that ensures conformance to contractual requirements and meets the requirements of ANSI/ASQC Q9001, or an equivalent quality system model during performance of this contract.

3.3.2 Quality Conformance Inspections and Tests. The Contractor shall conduct Quality Conformance Inspections and Tests IAW the Contractor's Acceptance Test Plan and Section 4.2 of the Performance Specification (PS/02/805/022). The Government reserves the right to send a representative(s) to witness production acceptance testing. The Contractor shall develop and submit an Acceptance Test Plan for Government review and approval in accordance with (CDRL A001). The Contractor shall provide documented acceptance test results with each system upon delivery to the Government. Inspection and acceptance shall be conducted at destination.

3.3.3 Testing. The Contractor shall make available for the Government's review, all previous and current test results concerning the performance, reliability, maintainability, availability, environmental conditions and safety of the "clip-on" image intensification night sight (in line) with variable dayscope and/or night sights.

3.4 PROGRAM SUPPORT.

3.4.1 Contractor's Program Management. The Contractor shall develop and implement an innovative management plan that clearly defines how the VAS NVD Program will be managed and controlled. The Contractor shall be responsible for overall system performance and shall define and maintain appropriate subcontract and associate contract relationships to support all necessary requirements, allocations and interface. The Contractor shall designate a single point of contact (POC) specifically charged with the responsibility for accomplishment of the performance and schedule requirements set forth by this SOW. The Government shall have access to the Contractor's facilities throughout the life of the agreement of this SOW. The POC shall be the focal point for all technical communication.

3.4.2 Monthly Status and Progress Reports. The Contractor shall submit monthly progress reports identifying detailed work and schedule status of on-going work and cost information on warranty/non-warranty repair activities. (CDRL A002).

3.4.3 Program Reviews. The Contractor shall be responsible for attending program reviews as mutually agreed upon with the Government. The Contractor shall convene the following described program reviews at the Contractor's facility. These reviews shall serve as a forum to resolve issues and exchange information in support of testing, production, repair, logistics support and delivery. The Contractor shall ensure that appropriate personnel are available for conferences and reviews to address and resolve agenda items. Program reviews shall commence within 90 days after contract award. Subsequent program reviews shall convene as mutually agreed between the Contractor and the government, but no more frequently than quarterly. A maximum of four Program Reviews will be held per year with

three at the Contractor's facility and one at NSWC Crane. The Contractor shall be prepared during all Program Reviews to address the contract performance.

3.4.4 Integrated Product Team (IPT). Government representatives from the users Command, NSWC Crane and the Contractor, throughout the life of the contract, shall establish an IPT. The IPT will provide the flexibility to adopt improved processes that increase system reliability/availability, improve/insert new technology, increase efficiency and system supportability. The overall objective is to lower total life cycle ownership cost of the Sight(s). Group size shall be optimized for efficiency in communication and coordination.

3.5 RELIABILITY/MAINTAINABILITY

3.5.1 Failure Reporting, Analysis and Corrective Action System (FRACAS). The Contractor shall furnish a Failed Item Analysis Report for each failed item occurring during Acceptance Testing or Warranty Returns (i.e., Quality Deficiency Reports (QDRs), (DR), etc.). The Contractor shall have an established closed loop failure reporting system, procedures for analysis of failures to determine cause, and documentation for recording procedures for analysis of failures to determine cause, and documentation for recording corrective action taken. The Contractor shall have a mechanism in place to collect and report field product performance, problems, failures, and shall implement an effective cause and corrective action system. The Contractor's existing data collection, analysis, reporting and corrective action system shall be used for field failure reporting. Failure data shall be isolated to the lowest replaceable assembly (LRU). The field failure reporting and corrective action system shall identify failures, prioritize failure trends, analyze failure modes and causes, and track solution effectiveness. The Contractor shall provide a monthly Failure Summary Analysis Report for each system repaired or replaced under warranty. (CDRL A003).

3.5.2 Performance. The Contractor shall notify the Government of any and all performance related data that would both positively and negatively impact the reliability, maintainability, availability and/or supportability of the Sight(s).. The Government may test, validate, verify and/or certify any and all of the Systems performance parameters to verify compliance with the Performance Specification.

The Contractor shall ensure the reliability of the Sight(s) is in compliance with the reliability requirements identified in paragraph 3.5.12 of the Performance Specification.

3.6 CONFIGURATION MANAGEMENT (CM). The Contractor shall have an established, Government verifiable, CM Program with control systems in place for the contract life. The Contractor's CM program shall be under the general guidance of MIL-HDBK-61A and shall provide configuration identification, configuration control, configuration status accounting, of all new and/or modified hardware, firmware, software, and documentation. The Program shall address the Contractor's procedures for CM; configuration reviews; and preparation, review and processing of Requests for Deviations and Waivers and Engineering Changes. The Production Baseline (PBL) shall be established at the time of contract award, which may include minor modifications recommended by the government during user negotiations based on user evaluation testing of product sample hardware. The PBL shall support interchangeability and interoperability to the replaceable part level. All baselines shall be documented in the Contractor's configuration status accounting database. The Contractor shall provide top-level system drawings. These drawings shall be submitted as required, whenever a configuration change causes change or revision to these drawings **for Government approval**. The latest revision of drawings shall be submitted to the Government throughout the life of the contract. The top-level drawings are used for the purpose of Nomenclature and National Stock Number assignments. (CDRL A004)

3.6.1 Configuration Identification (CI). The Functional Baseline and Product Baseline shall identify the hardware configuration of the Sight(s). The Functional Baseline is defined by the system specification. The Engineering Drawings, Associated Parts List, and Engineering and Logistics Life Cycle Documentation define the PBL.

3.6.2 Configuration Control (CC). The hardware PBL shall be controlled by Form, Fit, Function, Interchangeability and Interoperability in consonance with the Government Maintenance Concept of Organizational (O) to Contractor Logistics Support (CLS). The Contractor shall submit for Government approval, all proposed changes that impact the Form, Fit, Function, Interchangeability or Interoperability of the current system configuration in accordance with the Contract Data Requirements Lists.

3.6.2.1 Engineering Change Proposal (ECP). The Contractor shall prepare an Engineering Change Proposal (ECP), under the general guidance of MIL-HDBK-61A, for any changes to the approved Functional Baseline and/or Product Baseline. Class I and/or Class II ECP definitions shall be interpreted as defined in MIL-HDBK-61A. Class I ECPs shall require at a minimum a Revision or Part Number change to the Sight(s) dependent upon system impact to form, fit, function or cost. The Government shall dictate to the Contractor whether a Part Number or Revision to the Sight(s) is required for Class I ECPs. Any requests for Deviations, Waivers, and Notice of Revision (NOR) shall be submitted

through the Contracting Officer for Government review and approval. Drawing updates for Revisions and/or Part Number changes shall be completed at the Contractor's expense to include all technical documentation required by the Government. The Contractor shall provide ECPs via electronic mail and hard copy for Government review and approval. (CDRL A005, A006, A007, A008)

3.6.2.2 Non-Class I Changes. For those changes not affecting form, fit, or function (i.e. parts substitution, changes not impacting contract/delivery schedule, or cost, etc.), the Contractor shall document implementation of Class II ECPs with change to revision letter of the part number by the Configuration Status Accounting database outlined in paragraph 3.5.3 for Government record. The Contractor shall provide Class II ECPs to the Government for concurrence of Classification assigned affecting the top-level system drawing. (CDRL A005)

3.6.3 Configuration Status Accounting (CSA). A CSA database will be proposed by the Contractor and approved by the Government. All baselines, ECPs, deviations and waivers shall be documented in the Contractor's CSA database. The Government will utilize the Contractor's CSA database as the single tracking system for each configured hardware and software item for the Sight(s). The Contractor shall provide the Government the CSA database via electronic media. (CDRL A009)

3.7 INTEGRATED LOGISTICS SUPPORT (ILS). This Section outlines the Government's ILS requirements for the VAS NVD Program. These requirements include, but are not limited to, Maintenance Planning and execution, Technical Manuals, Training, warranty and non-warranty repair, and Contractor Logistics Support (CLS).

3.7.1 Contractor Logistics Support (CLS). The Contractor shall provide Life Cycle Support for the Sight(s) for a period of five (5) years from date of contract award to include repair and spare parts as required on individual delivery order. The Contractor shall provide a standard warranty on the Sight(s) for parts and labor for each System at no additional cost to the Government IAW the Contractor's standard warranty provisions. **The contractor shall either repair or replace units under its standard warranty proposed under CLINS 0001, 0002, or 0003 warranty coverage. The Contractor shall provide a new asset if failed Sight(s) and/or dayscope cannot be repaired and returned to the government within the 14-day period (objective) including shipping time.** The Contractor shall provide Original Equipment Manufacturer (OEM) level repairs and service. The Contractor shall repair Sight(s) not covered under the warranty provisions as directed by the Government on an individual delivery order.

3.7.2 Extended Three-Year Warranty. The Contractor shall provide a three (3) year warranty on the Sight(s), covering any damage or degradation of performance due to manufacturing or failures associated with normal use. **The Contractor shall be responsible for the cost associated with returning systems from the Contractor to NSWC Crane following extended three-year warranty repair for all Sight(s).** All repaired Sights shall be shipped from the Contractor to NSWC Crane for inspection. Warranty repair turn around time shall not exceed 14 calendar days after receipt of the failed Sight(s) system **at Contractor's Plant including return shipping time. The Contractor shall provide a new asset if failed Sight(s) and/or dayscope cannot be repaired and returned to the government within the 14-day period (threshold) including shipping time. The contractor shall have sufficient Ready-For-Issue Sights available to meet the demand of repair**. **The Contractor shall be responsible for funding up front replacement spares and parts and for having sufficient quantity of spares and replacement parts on hand to perform extended three-year warranty repair.** All failures returned to the OEM for repair will have a Return Material Authorization (RMA) number assigned by the Contractor. The Contractor shall perform inspection and failure analysis on all returned Sight(s) returned for warranty repair. This SOW requires the Contractor maintain Sight(s) spares, repair parts, and subassemblies necessary to meet the required repair turnaround time (TAT) and support the quantity of Sight(s) for the performance period under the terms of this contract. **The contractor shall either repair or replace units under proposed under CLINS 0006AA, 0006AB, or 0006AC extended three-year warranty coverage.**

3.7.3 Non-Warranty Failure Analysis and Repair. The Contractor shall receive, inspect, test, and perform failure analysis and/or isolate each Sight to determine the specific work required to restore it to a serviceable condition. The Contractor shall repair the Sight(s) that does not exceed 65 percent of the Best Economical Replacement to the latest production or approved configuration. The Contractor shall perform failure analysis and submit a detailed time and materials cost proposal **under CLINs 0004AA, 0004AB or 0004AC to the Contracting Officer** within ten calendar days after receipt of the failed Sight(s) to the Contracting Officer prior to commencement of work for any non-warranty repairs. Cost proposals submitted for work to be performed shall include all cost associated for evaluation and actual repair of the Sight(s), itemized listing of parts required for those repairs, and timeframe required for the repair. The Contractor shall not perform any non-warranty repair on the failed Sight(s) until receipt of the delivery order. Disassembly of the Sight(s) shall be limited to the minimum extent possible**. Repair turn around time shall not exceed 14 calendar days after receipt of delivery order including shipping time. If a failed Sight is beyond economical repair, the Government may choose to replace the Sight at its discretion via procuring a new Sight under CLINS 0001, 0002 or 0003.** All failures returned to the OEM for repair will have a Return Material Authorization (RMA) number assigned

by the Contractor. The Contractor shall ship all repaired Sights to NSWC Crane for inspection. The Contractor shall be responsible for all shipping costs of the repaired Sight to NSWC Crane. All non-warranty repairs performed on the Sights by the Contractor shall be warranted for a minimum of 120 days. This does not exclude any existing warranty remaining on the Sight.

The Contractor may be paid the Contract negotiated time and materials rate as indicated in Section "B" for each repair up to the Maintenance Expenditure Limits (MEL) not to exceed 65% of the average acquisition cost of the Sight(s). Should the estimated cost of repair exceed the MEL, the Contractor shall notify the PCO representative and the NSWC Crane representative via phone/e-mail within 10 working days for disposition instructions. The Contractor shall be responsible for procurement of all Sight(s) spares and repair parts required to accomplish the work specified in this SOW during the performance period. All parts and material used during the repair process shall meet or exceed the original specifications and technical data requirements of the applicable contracts. The Contractor shall store all Sight Systems and repair and spare parts in such a manner as to preclude any damage or loss.

3.7.3.1 Types of Non-Warranty Repair. Examples of repairs consist of reticle replacement, purge and seal, recalibration and testing, electronic repairs/replacement and optical element replacement, intensifier tube replacement, objective lens replacement and housing replacement. NSWC Crane will perform failure analysis screening on all failed Systems prior to forwarding to the Contractor for analysis and repair.

3.7.3.2 The Contractor shall be required to restore the repaired Sight(s) to a serviceable condition. Any damage to protective finishes shall be repaired to the extent necessary to provide adequate protection during field usage, corrosion prevention and structural integrity. The Contractor shall be required to replace all damaged markings, identifications, and decals when the markings, identifications, or decals become unreadable.

3.7.3.3 The Contractor shall ensure all repaired, upgraded, or modified Sight(s) meet or exceed the original performance specification (PS/02/805/022). Scratches, delaminating or other optical flaws on the optics will be replaced only if it degrades system's performance or may deteriorate to degrade system's performance.

3.7.3.4 After the repaired Sight NV System passes acceptance testing at the Contractor's facility, the Contractor shall ship the repaired System to NSWC Crane for inspection and forwarding to the designated User.

3.7.3.5 The Contractor shall ensure that each repaired and serviceable Sight is packaged IAW best commercial practices.

3.7.3.6 The Contractor shall advise the Government in writing of all material to be condemned. Disposition instructions will be provided for Beyond Economical Repair (BER) equipment.

3.7.4 MAINTENANCE PLANNING. The Sight(s) shall be maintained under a two level concept, Organizational (O) and Contractor Logistics Support (CLS) for above O-level repair. O-level will operate and repair the system by using a "remove and replace" concept for repair of minor items such as replacing knobs, examining the unit for any physical damage, replacing the batteries, and cleaning the unit as needed (i.e. rinsing it to remove sea water/mud, and cleaning the lenses). A designated Government facility will perform failure analysis screening of failed Systems prior to returning to the OEM for repair. CLS will consist of any tasks required to repair any failure of the Sight(s) beyond the O-level. The Contractor shall provide CLS level of support while the Government will provide O-level support. The Government performing O-level support does not nullify any existing warranty on the Sight(s).

3.7.5 TRAINING AND TRAINING SUPPORT.

3.7.5.1 New Equipment Training (NET) Course Curriculum Training Materials. The Contractor shall develop and provide a cost effective New Equipment Training (NET) package that supports Organizational Unit Operation, maintenance, testing, and fielding the Sight(s). The Training materials package will be used by Instructor Initial Key Personnel Training (IKPT) to provide NET to Users. The Contractor's Training Curriculum shall be developed in a format suitable for projection or computer based presentation and provided via Compact Disk – Read Only Memory (CD-ROM). (CDRL A010)

3.7.5.2 Institutional Training. The Contractor, on a fully operational Government Sight system, shall provide Operator/Maintenance Training to NSWC Crane technical representatives. Training shall not exceed an 8-hour normal workday. (CDRL A010)

3.7.6 TECHNICAL DATA.

3.7.6.1 Operators/Maintenance Technical Manual. The Contractor shall provide an NDI Operator's and Maintenance Manual IAW the Technical Manual Contract Requirements (TMCR). The TMCR can be obtained at the following web address: **To reference a document directly, use the following URL: http://nsdsa.phdnswc.navy.mil/tmhtml/h020151000.htm.**
The Government will perform a verification of the commercial manuals using the TMCR. The Operators Manual at a minimum shall include introduction, Preparation for use and installation, Principles of Operation, Maintenance and Servicing Instructions (preventive and corrective), Preparation for Shipment, Parts List, Operational and Maintenance Illustrations, Safety Precautions (Warnings, Cautions, and Notes) and information on the functionality of the SIGHT(S), its components/accessories, system operation from turn-on to system shut down including adjustments, and operator checks and services. The Technical Manual shall be no larger than 41/2 X 6 inches.

The Contractor shall provide unit/organizational level Operator and Maintenance manuals with each delivered Sight. A Technical Manual start of work meeting shall be held concurrent with the post award conference to ensure all requirements are reviewed and agreed upon. The Operator and Maintenance Manual shall be provided IAW CDRL A011.

3.7.6.2 Data Validation. The Contractor shall have a process in place that provides for the validation of the adequacy and technical accuracy of the Technical Manual. The Government will verify and approve the accuracy and completeness of the Technical Manual provided by the Contractor. Any discrepancies shall be corrected by the Contractor at no additional expense to the Government.

3.7.7 SUPPLY SUPPORT.

3.7.7.1 Proposed Spare Parts List for Spares Acquisition Integrated with Production (SAIP). The Contractor shall employ the concept of concurrent release of spare orders with identical parts as installments on the production unit. The Contractor shall provide a complete proposed spare parts listing of all the parts that identifies the Sight(s), which can be removed and replaced at the O-Level and repaired at the OEM (CLS) IAW CDRL A012. The Contractor shall identify which Proposed Spare Parts are repairable at O-level and which are repairable at D-level. The Proposed Spare Parts list shall be delivered in a top-down breakdown format of the Sight and shall include repairable, replacement parts (consumables) and long lead time items. Each item on the Proposed Spare Parts List shall be priced and available for ordering. The Proposed Spare Parts List shall contain the part number, nomenclature, CAGE, Quantity and unit price. The Proposed Spare Parts List shall include the spares based upon failure analysis to support a 12-month sparing philosophy. The contractor shall provide Spare Parts under this SOW paragraph.

3.7.8 Packaging, Handling, Storage and Transportation. The Contractor shall ensure that when the Sight is packaged in its soft carry case, it is capable of being transported on standard transportation system, commercial or military. The Contractor shall also ensure when the Sight is in its shipping container, it shall withstand, without physical damage or degradation of performance, transportation modes of commercial air, truck, and all types of Army/Navy cargo or combat vehicles as well as Naval fast Boats and Submersible Diving Vehicles (SDVs).

The Sight(s) shall include a soft carry case. The soft carry case will provide protection for the Sight against environmental conditions associated with carrying the system in a field environment when not attached to the weapon platform. The shipping and storage case will protect the Sight against damage associated with transportation, handling, and storage.

Labeling and marking requirements shall be IAW MIL-STD 129N and shall include but not limited to the following markings (1) Sight(s) name and nomenclature; (2) Sight(s) unique serial number; (3) Manufacturer; (4) Contract Number, (5) Warranty Expiration date; and (6) Part Number with revision level.

3.7.9 Safety.

3.7.9.1 Environmental and HAZMAT. The Contractor shall have an established Environmental and HAZMAT program to ensure the system design, development, testing, evaluation, operations, and maintenance comply with federal, state, and local environmental laws, regulations, shipping regulations, policies, treaties, and agreements. The Contractor shall perform a comprehensive Environmental, Safety and Health (ESH) analyses and provide an Environmental Safety and Health Plan addressing Environmental Safety Hazards, Support requirements associated with using hazardous materials, and Cost effective pollution prevention programs. The Contractor shall ensure the Environmental and Hazard analysis complies with DOD Dir 5000.2-R, paragraph 4.3.7. The Contractor shall identify any non-metallic materials contained in the Sight(s). (CDRL A013)